AMENDMENTS TO THE CLAIMS

1-19. (cancelled)

20. (New) A motor drive control device that controls a motor having three or more phases, comprising:

a d-q voltage calculating unit that calculates a voltage ed which is a d-axis component of a counter-electromotive force, and a voltage eq which is a q-axis component of the counter-electromotive force;

a q-axis command current calculating unit that calculates a current command value Iqref, which is a q-axis component of a current command value, on the basis of the voltage ed and the voltage eq;

a d-axis command current calculating unit that calculates a current command value Idref that is a d-axis component of the current command value;

an each-phase current command value calculating unit that calculates phase current command values of the respective phases on the basis of the current command values Iqref and Idref;

a motor current detecting circuit that detects motor phase currents of the respective phases of the motor; and

a current control unit that controls phase currents of the motor on the basis of the phase current command values and the detected motor phase currents.

21. (New) A motor drive control device according to claim 20, wherein, when the motor has three phases, phase current command values Iavref, Ibvref, and Icvref are calculated according to a constant depending on the current command values Idref and Iqref and a rotation angle of the motor.

22. (New) A motor drive control device according to claim 20, wherein the current control unit includes integral control.

23. (New) A motor drive control device according to any one of claims 20 to 22, wherein the motor is a brushless DC motor.

24. (New) A motor drive control device according to any one of claims 20 to 22, wherein a waveform of a current or an induced voltage of the motor is a rectangular wave or a pseudo-rectangular wave.

25. (New) A motor drive control device according to claim 23, wherein a waveform of a current or an induced voltage of the motor is a rectangular wave or a pseudo-rectangular wave.

26. (New) A motor drive control device that controls a motor having three phases, wherein a waveform of a current or an induced voltage of the motor is a rectangular wave or a pseudo-rectangular wave having n-th (n=2, 3, 4, ...) harmonics, comprising:

a d-axis command current calculating unit that calculates a current command value Idref that is a d-axis component of a current command value; and

a q-axis command current calculating unit that calculates a current command value Iqref, that is a q-axis component of the current command value, by substituting a rotation angle, an angular velocity, and a counter-electromotive force of the motor, the current command value Idref, and a torque command value to the motor into a motor output equation;

wherein the current of the motor is controlled on the basis of the current command values Idref and Iqref.

27. (New) An electric power steering apparatus, wherein the motor drive control device according to any one of claims 20 to 22 is provided.

28. (New) An electric power steering apparatus, wherein the motor drive control device according to claim 23 is provided.

29. (New) An electric power steering apparatus, wherein the motor drive control device according to claim 24 is provided.

30. (New) An electric power steering apparatus, wherein the motor drive control device according to claim 25 is provided.

31. (New) An electric power steering apparatus, wherein the motor drive control device according to claim 26 is provided.